



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,200	12/14/2001	Sol P. DiJaili	15436.247.38.1	6418

22913 7590 02/27/2004

WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER &
SEELEY)
60 EAST SOUTH TEMPLE
1000 EAGLE GATE TOWER
SALT LAKE CITY, UT 84111

EXAMINER

MOSKOWITZ, NELSON

ART UNIT PAPER NUMBER

3663

DATE MAILED: 02/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,200

Applicant(s)

DIJAILI ET AL.

Examiner

Nelson Moskowitz

Art Unit

3663

MW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2 & 3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claim 1 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Maywar et al, or Mason et al, or Shiragaki. See, inter alia, Maywar et al figures 1 and 7, and columns 8 and 9; Mason et al figures 1 and 2; and Shiragaki columns 1-3 and paragraphs 8-10, 15 and 16.

Please note that the specific reference constituents cited herein are done so for the convenience of the Applicant and are in no way intended to be limiting. The references should be considered in their entirety.

2. Claims 1-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maywar et al, or Mason et al, or Shiragaki.

In determining obviousness, the following factual determinations are made:

- a. First, the scope and content of the prior art.
- b. Second, the difference between the prior art and the pending claims.
- c. Third, the level of skill of a person on ordinary skill in this art;
- d. Fourth, whether other objective evidence may be present, which indicates obviousness or nonobviousness. See, e.g., *In re Dembiczak*, 175 F.3d 994, 998, 50 USPQ2d (BNA) 1614,

1616 (Fed. Cir. 1999) citing *Graham v. John Deere Co.*, 383 US 1, 17-18, 148 USPQ2d (BNA) 459, 466-67 (1966).

Objective evidence includes long felt but unmet need for the claimed invention, failure of others to solve the problem addressed by the claimed invention, and other factors. See e.g. *Simmons Fastener Corp. v. Illinois Tool Works, Inc.*, 739 Fed. 1573, 1574-76, 22 USPQ 744, 745-47 (Fed. Cir. 1984).

Examining the scope and content of the prior art one finds that Maywar et al, Mason et al, and Shiragaki disclose the invention set forth in claim 1, with a wavelength converter using a single LSOA. However these references do not disclose the use of plural LSOAs as set forth in claims 14-47, or the specific type of LSOA and paths taken.

However, the use of plural LSOA units to merely multiply the effect of a single unit, would have been *prima facie* obvious to one skilled in this art. In addition, the specification of the particular kinds of LSOAs used provide no new or unobvious results, and are thus equally usable for the wavelength conversion.

Secondly, under Deere, the difference between the claimed invention and the prior art lies in the combination of the wavelength converter using an LSOA with the use of plural LSOA units to multiply the effect of a single unit, and a variety of LSOAs.

Third, under Deere, the level of ordinary skill in this art may be determined by the analysis of the Court as set forth in Environment Designs Ltd. v. Union Oil Co., 713 F. 3d 693, 281 USPQ 865-69 (Fed Cir. 19830 cert. denied, 464 1043 (1984)), where the court listed factors relevant to a determination of the level of ordinary skill; type of problems encountered in the art,

prior art solutions, rapidity of innovations, sophistication of technology, and educational level of active worker in the field.

The types of problems encountered in the art involve large size, great complexity and high costs for wavelength conversion units.

Innovation in this field has been very fast as can be seen from virtual birth of this field in the 1970s to its present highly complex and sophisticated status.

Prior art solutions include using VLSOA wavelength converters. Skilled artisans generally have graduate level education and over seven (7) years of experience, as can be seen from published articles in the major journals in this field, e.g. IEEE Photonics Technology Letters, Optical Communications, Optics, Optical Fiber Technology, Electronics Letters, etc.

To date, no secondary consideration (objective evidence) has been presented.

Therefore, as the above prior art taught the benefits of using LSOA units as claimed for wavelength conversion, such use with multiple units, or different types of LSOA units as claimed would have been obvious to one of ordinary skill in this art.

As the aforesaid prior art is known by optical physicists to provide the respective benefits and improvements as set forth above, the artisan would typically readily recognize the results of using multiple units.

3. The references cited by Applicant (PTO-1449s ; papers 2 and 3) have been considered and found representative of the state of this art. The Walker et al and Doussiere et al publications are found to be the most relevant references cited by Applicant.

Never the less, Applicant is advised that the M.P.E.P. states the following with respect to large information disclosure statements:

Although a concise explanation of the relevance of information is not required for English language information, applicants are encouraged to provide a concise explanation of why the English-language information is being submitted. Concise explanations (especially those that point out the relevant pages and lines) are helpful to the Office, particularly where documents are lengthy and complex and applicant is aware of a section that is highly relevant to patentability or where a large number of documents are submitted and applicant is aware that one or more is highly relevant to patentability.

M.P.E.P. § 609. This statement is in accord with *Molins PLC v. Textron, Inc.*, 48 F.3d 1172 (Fed. Cir. 1995) at page 1888. This case presented a situation where the application contained more than fifty references. A cursory glance at the M.P.E.P. also provides more support for this position. In a subsection entitled "Aids to Compliance With Duty of Disclosure," item thirteen states:

It is desirable to avoid the submission of long lists of documents if it can be avoided. Eliminate clearly irrelevant information and marginally pertinent cumulative information. If a long list is submitted, highlight those documents which have been specifically brought to Applicant's attention and/or are known to be of the most significance. See Penn Yan Boats, Inc. v. Sea Lark Boats, Inc., 359 F. Supp. 948 (S.D. Fla. 1972) aff'd 479 F.2d 1338 (5th Cir 1974); [Molins]."

4. References D-K and N (PTO-892) are cited to show the widespread knowledge of using LSOAs for wavelength conversion.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson Moskowitz whose telephone number is 703-306-4165. The examiner can normally be reached on Monday through Friday from 7:30 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Thomas Black, can be reached on (703) 306-4171. The before final fax phone number for the organization where this application or proceeding is assigned is 703-872-9326. The after final fax phone number for the organization where this application or proceeding is assigned is 703-872-9327.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.